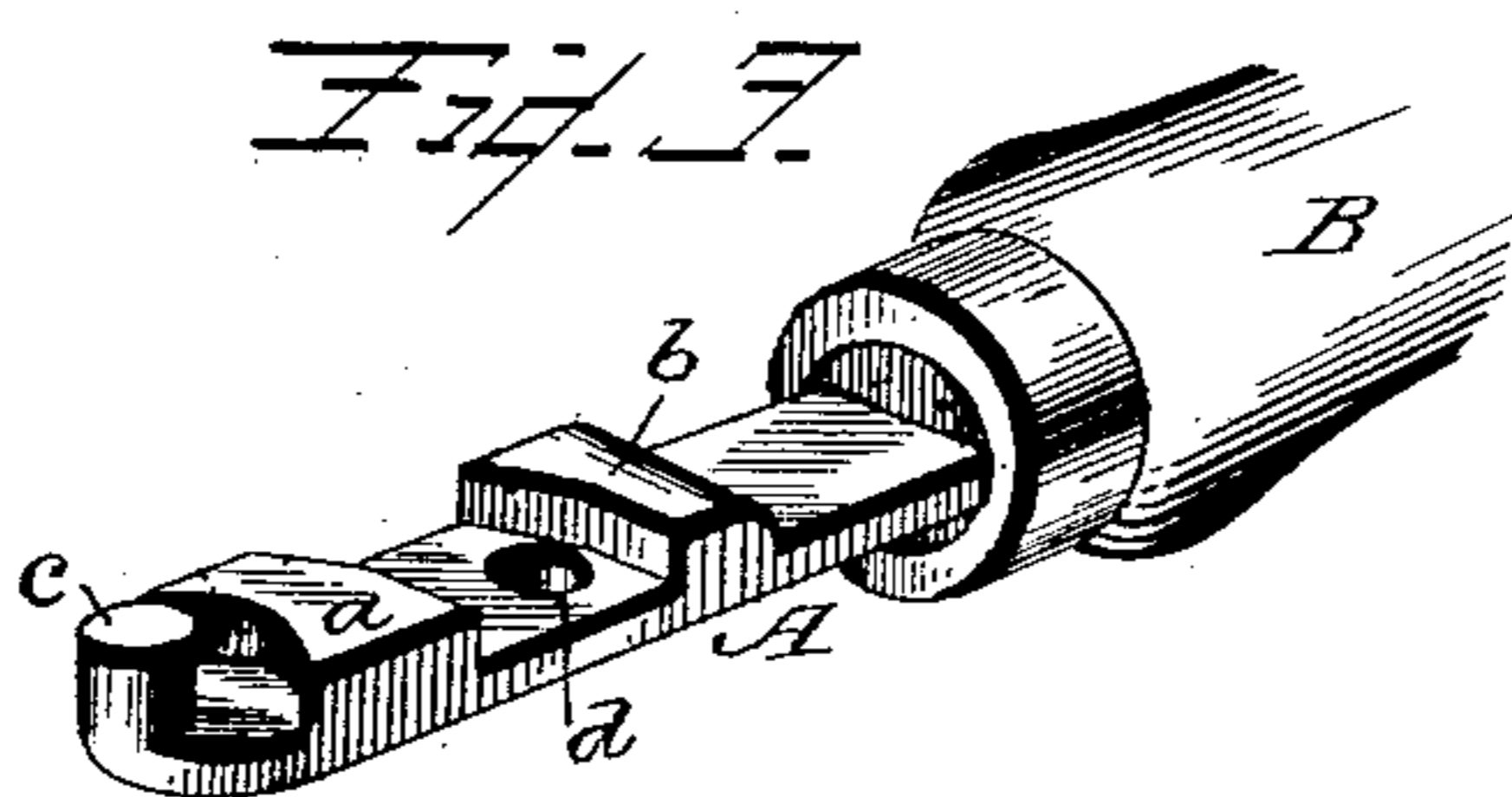
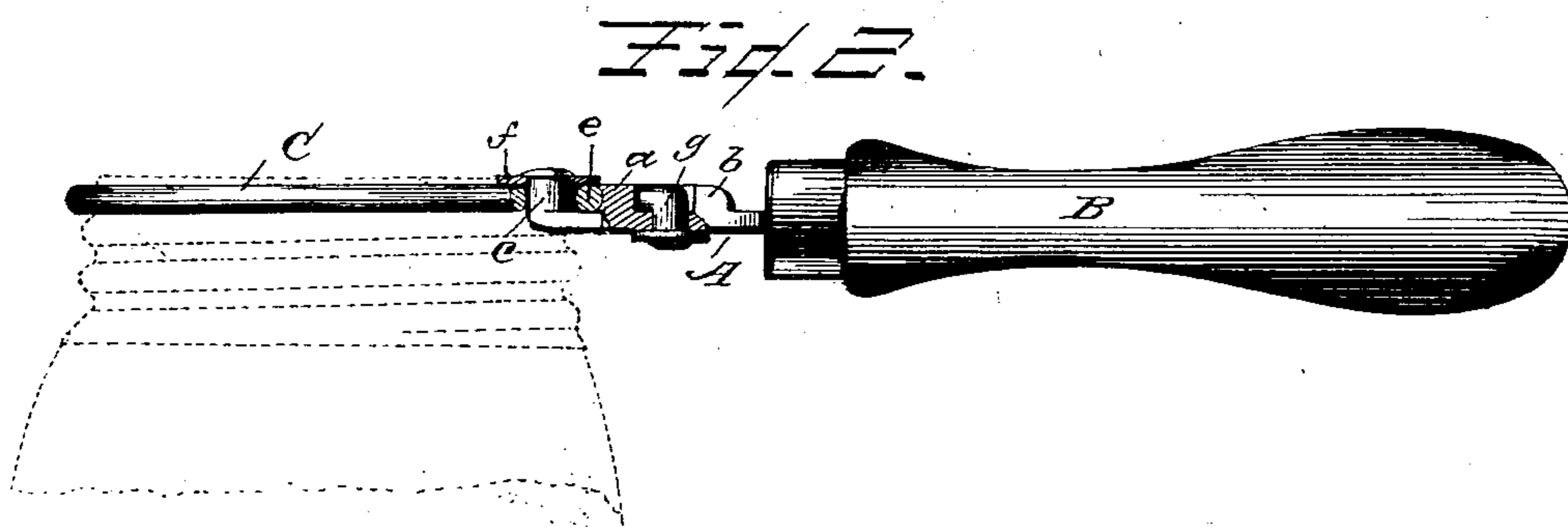
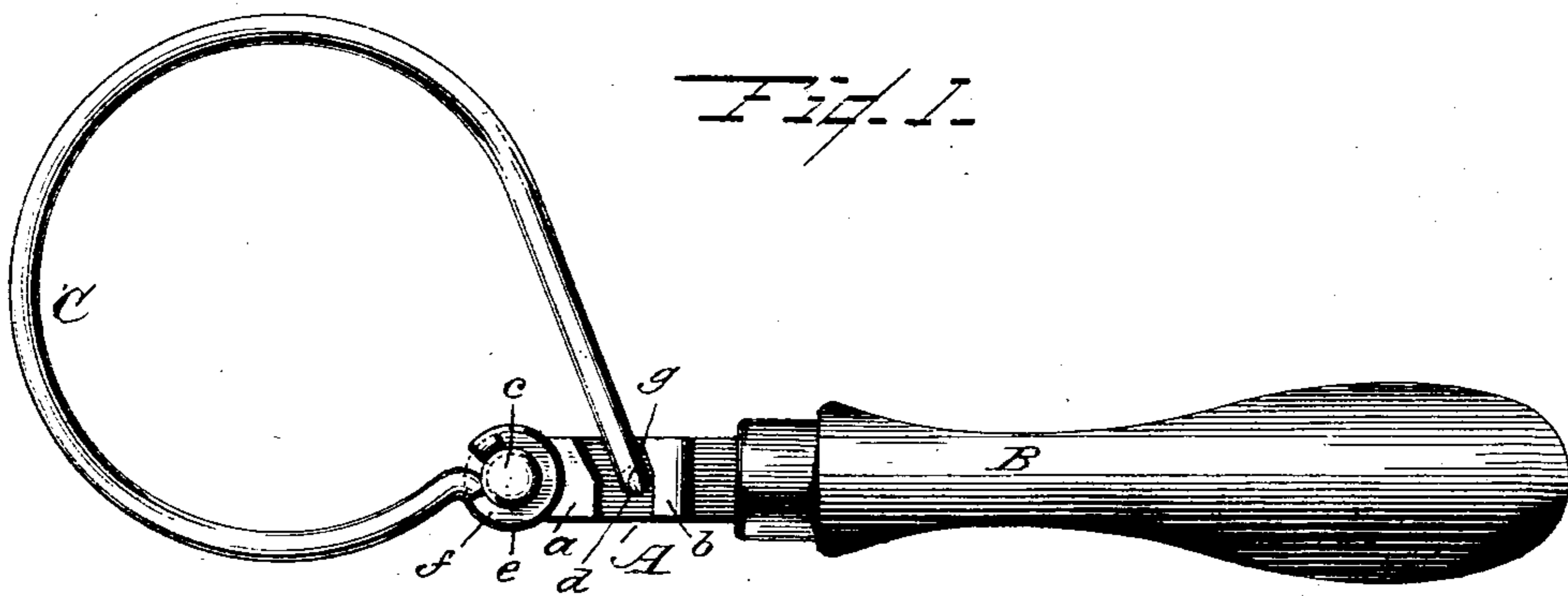


No. 733,298.

PATENTED JULY 7, 1903.

J. H. STULL.
TOOL FOR CLOSING OR OPENING JARS.
APPLICATION FILED JAN. 9, 1902.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

JACOB H. STULL, OF FREMONT, OHIO.

TOOL FOR CLOSING OR OPENING JARS.

SPECIFICATION forming part of Letters Patent No. 733,298, dated July 7, 1903.

Application filed January 9, 1902. Serial No. 89,009. (No model.)

To all whom it may concern:

Be it known that I, JACOB H. STULL, a citizen of the United States, residing at Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Tools for Closing or Opening Jars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has relation to that class of tools or devices for turning the screw-threaded covers of fruit-jars and other like receptacles in which a clamping-ring to encircle the cover is employed and provided with a suitable handle or lever for turning the same.

It is the purpose of the invention to materially improve the construction of the above-mentioned class of devices whereby it is rendered more effective and easily operated to turn the cover of the jar or like receptacle; and it consists in a tool constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a top plan view of my improved tool; Fig. 2, a side elevation, partly in section and showing the tool applied to the cover of a fruit-jar, the same being indicated in dotted lines; Fig. 3, a perspective view of the end of the lever, showing a portion of the handle; Fig. 4, a detail perspective view of the looped end of the wire ring.

In the accompanying drawings, A represents the usual lever, preferably of metal and cast with suitably-formed bearing-shoulders *a b* and lug *c* and having a pivot-hole *d* between said shoulders, as shown more clearly in Fig. 3 of the drawings, said lever having a handle B of any desirable construction.

A loop or gripper C, constructed of wire, is employed in connection with the lever A, and when in use said loop or gripper encircles the jar-cover, and by turning the handle with its lever in the proper direction the loop or gripper will be clamped tightly on the jar-cover, and by further turning the handle the cover is loosened and removed. One end of the wire loop or gripper C is formed with an eye

e, through which extends the lug *c*, and, if desired, said lug may be headed and a washer *f* interposed between the head and the eye of the loop or gripper, as shown in Fig. 2 of the drawings. The opposite end of the loop or gripper C is bent at substantially a right angle to form a pivot-pin *g*, the same engaging the hole *d* in the lever A, thereby connecting the two ends of the loop or gripper to the lever.

The advantages of the bearing-shoulders *a b* reside in said shoulders taking much of the strain off the ends of the loop or gripper C, which otherwise would tend to open and spread the eye *e* and render the same liable to disconnect itself from the lug *c*. The same service is secured in the bearing-shoulder *b* with relation to the pivot-pin *g*, said shoulder preventing any twisting or bending thereof, both the bearing-shoulders acting as fulcrums to the ends of the wire loop or gripper.

The pivot-pin *g* takes the place of the usual eye in the loop or gripper at the end thereof where comes the most strain when giving leverage power to the tool in first starting the cover of the jar to loosen it, so that it can be removed without difficulty.

It is absolutely essential to the successful operation of this class of tools that the wire be as thin as practicable in order to secure the maximum degree of flexibility and elasticity or resiliency necessary to close around the jar-cover and release itself therefrom. Where eyes are used at the ends of the wire loop or gripper, in order to prevent the eyes spreading and opening a very thick wire was necessary, and it would therefore lack the required resiliency or elasticity to conveniently place it over the jar-cover and remove it when required, and when a thinner wire is used the eyes of the wire would spread and open by the strong leverage applied to the loop or gripper, and thereby render the tool worthless. To overcome these objections and enable a thin wire to be used with the advantages hereinbefore described, the bearing-shoulders *a b* are employed to take too great a strain off the ends of the wire in addition to bending the wire at one end to form a pivot-pin *g* in place of the usual eye, as it is at this end of the loop or gripper that the greatest strain comes, and there being no eye to spread or open no matter how great the leverage the

tool is rendered much stronger and more serviceable for the purpose intended, and consequently its value materially enhanced.

Having now fully described my invention,
5 what I claim as new, and desire to secure by Letters Patent, is—

1. A tool for closing and opening jars and other receptacles, comprising a suitable lever having stationary bearing-shoulders integral
10 with said lever, and a wire loop or gripper having its ends permanently connected to the lever and bearing against said shoulders to serve as fulcrums to the ends of the wire when the tool is in use, substantially as and for the
15 purpose set forth.

2. A tool for closing and opening jars or

other receptacles, comprising a suitable lever, bearing-shoulders and a lug upon said lever and integral therewith, a wire loop or gripper having an eye and a pivot-pin at its respective ends, said eye engaging the lug at the outer end of the lever and the pivot-pin engaging a hole in the lever between the bearing-shoulders, substantially as and for the purpose set forth. 20

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses. 25

JACOB H. STULL.

Witnesses:

JOSEPH KINDLE,
W. W. STULL.